

What is claimed is:

1. A method of establishing a security policy for a predetermined organization, the method comprising:

5 a draft preparation step of preparing a security policy draft;

an analysis step of examining a difference between the security policy draft and realities of the organization; and

10 an adjustment step of adjusting the security policy draft on the basis of the difference or adjusting operation rules of an actual information system belonging to the organization on the basis of the difference.

2. The method of establishing a security policy according to claim 1, wherein the draft preparation step comprises:

15 a preparation step of preparing inquiries to be submitted to members of an organization;

an inquiry step of submitting the prepared inquiries to the members;

20 an answer acquisition step of acquiring from the members answers to the inquiries; and

a drafting step of preparing a security policy draft on the basis of the answers.

3. The method of establishing a security policy according to claim 2, wherein the preparation step involves preparation  
25 of inquiries on the basis of job specifications of members to be inquired.

4. The method of establishing a security policy according

to claim 2, wherein the answer acquisition step includes at least one of the steps of:

integrating the answers acquired from a single member from among the acquired answers and storing the integrated answers  
5 into storage means as answers of a single member to be inquired;

re-submitting inquiries to members if contradictory answers are included in the answers, to thereby resolve contradiction, and storing the answers into the storage means; and

10 assigning weights to answers according to job specifications of the members to be inquired if contradictory answers are included in the answers, to thereby estimate answers and show the estimated answers.

5. The method of establishing a security policy according to claim 2, wherein the analysis step comprises at least one  
15 of:

a contradiction inspection step of inspecting whether or not contradictory answers are included in the answers;

a first difference detection step of inspecting a  
20 difference between an information system virtually designed on the basis of the answers and the security policy, by means of comparison; and

a second difference detection step of verifying the virtually-designed information system by means of examination  
25 of a real information system and inspecting a difference between the verified information system and the security policy draft by means of comparison.

6. The method of establishing a security policy according to claim 5, further comprising a measurement step of devising measures addressing the inspected difference in conjunction with the priority of the measures.

5 7. The method of establishing a security policy according to claim 1, further comprising a diagnosis step of diagnosing the security state of the organization, wherein a result of diagnosis performed in the diagnosis step is submitted to the organization, wherewith the organization can become conscious of a necessity for a security policy.

8. The method of establishing a security policy according to claim 6, further comprising:

10 a priority planning step of planning, in sequence of priority, implementation of the security measures which have been devised with priority, thereby embodying a budget of the organization.

15 9. The method of establishing a security policy according to claim 8, wherein the security measures comprise

20 constructing a system for managing the establishing a security policy:

introduction of a security system;

training for compelling employees to respect a security policy;

analysis of system logs;

25 monitoring of a network;

auditing operations on the basis of the security policy;

and

reviewing the security policy.

10. The method of establishing a security policy according to claim 8, further comprising:

5 a security enhancement measures implementation step of implementing the security measures in accordance with the plan.

11. A method of establishing a security policy comprising:

a preparation step of preparing inquiries to be submitted to members of an organization;

10 an inquiry step of submitting the prepared inquiries to the members;

an answer acquisition step of acquiring from the members answers to the inquiries; and

an establishment step of establishing a security policy on the basis of the answers.

15 12. The method of establishing a security policy according to claim 11, wherein the preparation step involves preparation of inquiries on the basis of job specifications of members to be inquired.

20 13. The method of establishing a security policy according to claim 11, wherein the answer acquisition step includes at least one of the steps of:

integrating the answers acquired from a single member from among the acquired answers and storing the integrated answers into storage means as answers of a single member to be inquired;

25 re-submitting inquiries to members if contradictory answers are included in the answers, to thereby resolve contradictions and storing the answers into the storage means;

and

assigning weights to answers according to job specifications of the members to be inquired if contradictory answers are included in the answers, to thereby estimate answers and display the estimated answers.

14. The method of establishing a security policy according to claim 11, wherein the establishment step involves establishment of three levels of security policies: namely,

an executive-level security policy which describes the organization's concept and policy concerning information security, in conformity with global guidelines;

a corporate-level security policy which describes an information security system embodying the executive-level security policy; and

a product-level security policy which describes measures to implement the executive-level security policy with reference to the corporate-level security policy.

15. The method of establishing a security policy according to claim 14, wherein the corporate-level security policy describes standards for the information security system of the overall organization; and standards for individual equipments constituting the information security system of the organization.

16. The method of establishing a security policy according to claim 14, wherein the product-level security policy includes two types of product-level policies; namely,

a first-level security policy describing settings of individual equipment constituting the information security

system in natural language; and

a second-level security policy describing settings of individual equipment constituting the information security system in specific language used in specific equipments.

5 17. The method of establishing a security policy according to claim 11, further comprising an analysis step of examining a difference between the security policy draft and realities of the organization;

the analysis step further comprising at least one of

10 a contradiction inspection step of inspecting whether or not contradictory answers are included in the answers;

15 a first difference detection step of inspecting a difference between the security policy and an information system virtually designed on the basis of the answers, by means of comparison; and

20 a second difference detection step of verifying the virtually-designed information system by means of examination of a real information system and inspecting a difference between the verified information system and the security policy draft, by means of comparison.

18. The method of establishing a security policy according to claim 17, further comprising a measurement step of devising measures to the inspected difference, in conjunction with the priority of the measures.

25 19. An apparatus of establishing a security policy comprising:

inquiry preparation means for preparing inquiries to be

submitted to members of an organization;

storage means for storing answers to the inquiries;

answer archival storage means for acquiring from the  
members the answers to the inquiries and storing the answers  
5 into the storage means; and

establishment means for establishing a security policy  
on the basis of the answers stored in the storage means.

20. The apparatus for establishing a security policy  
according to claim 19, wherein the inquiry preparation means  
prepares inquiries to be submitted to the members to be inquired,  
on the basis of job specifications of the members to be inquired.

21. The apparatus for establishing a security policy  
according to claim 19, wherein the answer archival storage means

integrates the answers acquired from a single member from  
among the acquired answers and stores the integrated answers  
15 into the storage means as answers of a single member to be inquired;  
or

re-submits inquiries to members if contradictory answers  
are included in the answers, to thereby resolve contradiction,  
20 and stores the answers into the storage means; or

assigns weights to answers according to job specifications  
of the members to be inquired if contradictory answers are included  
in the answers, to thereby estimate answers and display the  
estimated answers.

25 22. The apparatus for establishing a security policy  
according to claim 19, wherein the establishment means  
establishes three levels of security policies: namely,

an executive-level security policy which describes the organization's concept and policy concerning information security, in conformity with global guidelines;

5 a corporate-level security policy which describes an information security system embodying the executive-level security policy; and

a product-level security policy which describes measures to implement the executive-level security policy with reference to the corporate-level security policy.

10 23. The apparatus for establishing a security policy according to claim 22, wherein the corporate-level security policy describes standards for the information security system of the overall organization; and standards for individual equipments constituting the information security system of the organization.  
15

24. The apparatus for establishing a security policy according to claim 22, wherein the product-level security policy includes two types of product-level policies; namely,

20 a first-level security policy describing settings of individual equipments constituting the information security system in natural language; and

a second-level security policy describing settings of individual equipments constituting the information security system in specific language used in specific equipments.

25 25. A method of assessing the state of security of an organization, the method comprising:

an inquiry preparation step of preparing inquiries to be



submitted to members of an organization;

an inquiry step of submitting the prepared inquiries to the members;

an answer acquisition step of acquiring from the members  
5 answers to the inquiries; and

a security state assessment step of assessing the state of security on the basis of the answers.

26. The method of assessing the state of security of an organization according to claim 25, wherein the inquiry  
10 preparation step involves preparation of inquiries on the basis of job specifications of members to be inquired.

27. The method of assessing the state of security of an organization according to claim 25, wherein the answer  
15 acquisition step involves integration of previous answers and acquired answers in a case where the answers are provided by an member to be inquired who has provided answers before, and involves storage of the integrated answers into storage means as answers from a single member to be inquired.

28. The method of assessing the state of security of an  
20 organization according to claim 25, wherein the assessment of a security state includes

assessment of security of the organization;

average assessment of security of the other organizations included in an industry to which the organization pertains; and

25 the highest security assessment which is considered to be attainable by organizations in the industry to which the organization pertains.

29. The method of assessing the state of security of an organization according to claim 25, wherein the assessment of a security state includes scores assigned to the following items; namely,

5        understanding and attitude concerning security;  
a security system of the organization;  
response to unexpected accidents;  
preparation of a budget for security; and  
measures to improve security.

10       30. An apparatus of assessing the state of security of an organization, the apparatus comprising:

preparation means of preparing inquiries to be submitted to members of the organization;

storage means for storing answers to the inquiries;

15       answer archival storage means of acquiring from the members the answers to the inquiries and storing the answers into the storage means; and

security maturity preparation means for preparing a security maturity report representing the degree of maturity  
20 of security, on the basis of the answers stored in the storage means.

31. The apparatus for assessing the state of security of an organization according to claim 30, wherein the answer archival storage means integrates previous answers and acquired answers  
25 in a case where the answers are provided by a member to be inquired who has provided answers before, and stores the integrated answers into the storage means as answers from a single member to be

inquired.

32. The apparatus for assessing the state of security of an organization according to claim 30, wherein the security maturity report includes

5       the degree of maturity of the organizations security;  
      the average degree of maturity of security of other organizations included in an industry to which the organization pertains; and

10       the highest degree of maturity of security which is considered to be attainable by organizations in the industry to which the organization pertains.

33. The apparatus for assessing the state of security of an organization according to claim 30, wherein the security maturity report includes scores assigned to the following items;  
15       namely,

      understanding and attitude concerning security;  
      a security system of the organization;  
      response to unexpected accidents;  
      preparation of a budget for security; and  
20       measures to improve security.

34. An analyzer for analyzing a difference between a security policy and an information system of an organization, comprising

      contradiction inspection means for inspecting whether or  
25       not contradiction exists between individual answers in response to inquiries submitted to members of the organization; and  
      contradiction output means for outputting information

about the inspected contradiction.

35. The analyzer for analyzing a difference between a security policy and an information system of an organization according to claim 34, further comprising:

5        indicating means for indicating the contradiction on the basis of the information about contradiction;

         establishment means for virtually establishing an information system for the organization on the basis of the answers free of contradiction; and

10       difference output means for outputting a difference between the configuration of the virtually-established information system and a security policy, by means of comparison.

36. The analyzer for analyzing a difference between a security policy and an information system of an organization according to claim 35, further comprising:

15       real system input means for examining the information system of the organization and entering the configuration of the information system; and

20       difference output means which verifies the virtually-established information system by reference to the configuration of the information system and outputs a difference between a security policy and the configuration of the virtually-established information system which has been verified, by means of comparison.

25       37. The method of establishing a security policy according to claim 2, wherein, in the inquiry preparation step, the inquiries are generated in accordance with the line of business of the

organization.

38. The method of establishing a security policy according to claim 11, wherein, in the inquiry preparation step, the inquiries are generated in accordance with the line of business  
5 of the organization.

39. The security policy establishment apparatus according to claim 19, wherein the inquiry preparation means generates inquiries to be submitted to an interviewee in accordance with the line of business of the organization.

40. The method of establishing a security policy according to claim 2, wherein, in the drafting step, a security policy is established on the basis of recommendations or regulations aimed at a specific line of business.

41. The method of establishing a security policy according to claim 11, wherein, in the establishment step, a security policy is established on the basis of recommendations or regulations aimed at a specific line of business.

42. The security policy establishment apparatus according to claim 19, wherein the establishment means establishes a  
20 security policy on the basis of items of recommendations or regulations aimed at a specific line of business.

43. The method of establishing a security policy according to claim 2, wherein, in the drafting step, a security policy is established on the basis of items of global guidelines of  
25 one or a plurality of types prescribed by a user.

44. The method of establishing a security policy according to claim 43, wherein, in the inquiry preparation step, inquiries

are generated on the basis of items of global guidelines of one or a plurality of types prescribed by a user.

45. The method of establishing a security policy according to claim 11, wherein, in the establishment step, a security policy is established on the basis of items of global guidelines of one or a plurality of types prescribed by a user.

46. The method of establishing a security policy according to claim 45, wherein, in the inquiry preparation step, inquiries are generated on the basis of items of global guidelines of one or a plurality of types prescribed by a user.

47. The security policy establishment apparatus according to claim 19, wherein the establishment means establishes a security policy on the basis of items of global guidelines of one or a plurality of types prescribed by a user.

48. The security policy establishment apparatus according to claim 47, wherein the inquiry preparation means generates inquiries to be submitted to interviewees, on the basis of items of global guidelines of one or a plurality of types prescribed by a user.

49. The method of establishing a security policy according to claim 2, wherein, in the establishment step, a security policy is established on the basis of an indicator of rigorousness of security policy prescribed by the user.

50. The method of establishing a security policy according to claim 49, wherein, in the inquiry preparation step, the inquiries are generated on the basis of an indicator of rigorousness of security policy prescribed by the user.

51. The method of establishing a security policy according to claim 11, wherein, in the establishment step, a security policy is established on the basis of an indicator of rigorousness of security policy prescribed by the user.

5 52. The method of establishing a security policy according to claim 51, wherein, in the inquiry preparation step, the inquiries are generated on the basis of an indicator of rigorousness of security policy prescribed by the user.

53. The security policy establishment apparatus according to claim 19, wherein the establishment means establishes a security policy on the basis of an indicator of rigorousness of security policy prescribed by the user.

54. The security policy establishment apparatus according to claim 53, wherein the inquiry preparation means generates inquiries, on the basis of an indicator of rigorousness of security policy prescribed by the user.

55. A security policy rigorousness adjustment method for adjusting the level of rigorousness of a security policy, comprising:

20 a rigorousness adjustment step of replacing the rules which have been determined not to match the indicator of rigorousness prescribed by a user with rules matching the indicator; and

a merge and output step of merging the rules matching the indicator of rigorousness from the beginning with the rules that in the rigorousness adjustment step have replaced the rules not matching the indicator and of outputting the merged rules.

56. A security policy rigorousness adjustment apparatus

for adjusting the level of rigorousness of a security policy,  
comprising:

rigorousness adjustment means for replacing the rules which  
have been determined not to match the indicator of rigorousness  
5 prescribed by a user with rules matching the indicator; and

merge and output means for merging the rules matching the  
indicator of rigorousness from the beginning with the rules which  
in the rigorousness adjustment means have replaced the rules  
not matching the indicator and for outputting the merged rules.

57. A method of establishing a security policy of a  
predetermined organization, comprising:

an inquiry preparation step of generating inquiries which  
pertain to items required for establishing a security policy  
of the organization and are to be submitted to members of the  
15 organization;

an inquiry step of submitting the generated inquiries to  
the members;

an answer acquisition step of acquiring from the members  
answers to the inquiries; and

20 an establishment step of establishing a security policy  
draft on the basis of the answers, wherein, in the establishment  
step, a security policy within a range of establishment prescribed  
by the user is established.

58. The method of establishing a security policy according  
25 to claim 57, wherein, in the inquiry preparation step, inquiries  
pertaining to the range of establishment prescribed by the user  
are generated.



59. A security policy establishment apparatus for establishing a security policy of a predetermined organization, comprising:

inquiry preparation means for generating inquiries which  
5 pertain to items required for establishing a security policy of the organization and are to be submitted to members of the organization;

storage means for storing answers to the generated inquiries;

10 answer archival storage means for acquiring answers to the generated inquiries and storing the answers into the storage means; and

establishment means for establishing a security policy within the range of establishment prescribed by the user.

15 60. The security policy establishment apparatus according to claim 59, wherein the inquiry preparation means generates inquiries pertaining to the range of establishment prescribed by the user.

20 61. A computer-readable recording medium having recorded thereon a program for causing a computer to perform:

inquiry preparation procedures for generating inquiries which pertain to items required for establishing a security policy of the organization and are to be submitted to members of the organization;

25 answer archival procedures for entering answers to the generated inquiries and storing the answers into storage means; and

establishment procedures for establishing a security policy on the basis of the answers stored in the storage means.

62. The recording medium according to claim 61, wherein, in the inquiry preparation procedures, inquiries to be submitted to interviewees are generated on the basis of job specifications of the interviewees.

63. The recording medium according to claim 61, wherein, in the answer archival procedures, the answers acquired from a single member from among the acquired answers are integrated, and the integrated answers are stored into the storage means as answers of a single member to be inquired; or

weights are assigned to answers according to job specifications of the members to be inquired if contradictory answers are included in the answers, to thereby estimate final answers and display the estimated final answers.

64. The recording medium according to claim 61, wherein, in the inquiry preparation procedures, inquiries to be submitted to the interviewees are generated on the basis of the line of business of the organization.

65. The recording medium according to claim 61, wherein, in the establishment procedures, a security policy is established on the basis of items of global guidelines of one or a plurality of types prescribed by a user.

66. The recording medium according to claim 61, wherein, in the inquiry preparation procedures, the inquiries are generated on the basis of an indicator of rigorousness of security policy prescribed by the user.

67. The recording medium according to claim 61, wherein, in the establishment procedures, a security policy within a range of establishment prescribed by the user is established.

68. A computer-readable recording medium having recorded thereon a program for causing a computer to perform:

inquiry preparation procedures for outputting inquiries which pertain to items required for evaluating the degree of maturity of security of a predetermined organization and are to be submitted to members of the organization;

answer archival procedures for entering answers to the outputted inquiries and storing the answers into storage means; and

security maturity preparation procedures for preparing a security maturity report representing the degree of maturity of security, on the basis of the answers stored in the storage means.

69. The recording medium according to claim 68, wherein the inquiry preparation means generates inquiries to be submitted to interviewees, on the basis of job specifications of the interviewees.

70. A computer-readable recording medium having recorded thereon a program for causing a computer to perform:

contradiction inspection procedures for inspecting whether or not contradiction exists between individual answers submitted in response to inquiries which pertain to items required for ascertaining a difference between a security policy of the predetermined organization and an information system of the

organization and which have been submitted to members of a predetermined organization; and

contradiction output procedures for outputting information about the inspected contradiction.

5           71. The recording medium according to claim 70, further comprising:

indicating procedures for indicating the contradictions on the basis of the information about contradiction;

10           establishment procedures for virtually establishing the configuration of an information system of the organization, on the basis of the answers free of contradictions; and

15           difference output procedures for outputting a difference between the configuration of the virtually-established information system and the security policy, obtained by means of comparison.

72. A computer-readable recording medium having recorded thereon a program for causing a computer to perform:

20           rigorousness adjustment procedures for replacing the rules which have been determined not to match the indicator of rigorousness prescribed by a user with rules matching the indicator of rigorousness; and

25           merge and output procedures for merging the rules matching the indicator of rigorousness from the beginning with the rules which in the rigorousness adjustment procedure have replaced the rules not matching the indicator and for outputting the merged rules.

73. A program for causing a computer to perform:

inquiry preparation procedures for generating inquiries which pertain to items required for establishing a security policy of a predetermined organization and are to be submitted to members of the organization;

5           answer archival procedures for entering answers to the generated inquiries and storing the answers into storage means; and

establishment procedures for establishing a security policy on the basis of the answers stored in the storage means.

10           74. The program according to claim 73, wherein, in the inquiry preparation procedures, inquiries to be submitted to interviewees are generated on the basis of job specifications of the interviewees.

15           75. The program according to claim 73, wherein, in the answer archival procedures, the answers acquired from a single member from among the acquired answers are integrated, and the integrated answers are stored into the storage means as answers of a single member to be inquired; or

20           weights are assigned to answers according to job specifications of the members to be inquired if contradictory answers are included in the answers, to thereby estimate final answers and display the estimated final answers.

25           76. The program according to claim 73, wherein, in the inquiry preparation procedures, inquiries to be submitted to the interviewees are generated on the basis of the line of business of the organization.

77. The program according to claim 73, wherein, in the

establishment procedures, a security policy is established on the basis of items of global guidelines of one or a plurality of types prescribed by a user.

5 78. The recording medium according to claim 73, wherein, in the inquiry preparation procedures, the inquiries are generated on the basis of an indicator of rigorousness of security policy prescribed by the user.

10 79. The recording medium according to claim 73, wherein, in the establishment procedures, a security policy within a range of establishment prescribed by the user is established.

15 80. A program for causing a computer to perform:  
inquiry preparation procedures for outputting inquiries which pertain to items required for evaluating the degree of maturity of security of a predetermined organization and are to be submitted to members of the organization;

answer archival procedures for entering answers to the outputted inquiries and storing the answers into storage means;  
and

20 security maturity preparation procedures for preparing a security maturity report representing the degree of maturity of security, on the basis of the answers stored in the storage means.

81. A program for causing a computer to perform:  
contradiction inspection procedures for inspecting  
25 whether or not contradiction exists between individual answers in response to inquiries which pertain to items required for ascertaining a difference between a security policy of the

predetermined organization and an information system of the organization and which have been submitted to members of a predetermined organization; and

contradiction output procedures for outputting  
5 information about the inspected contradiction.

82. The program according to claim 81, further comprising:  
matching procedures for matching the answers on the basis  
of the information about contradiction, thus producing answers  
free of contradiction;

10 establishment procedures for virtually establishing the  
configuration of an information system of the organization, on  
the basis of the answers produced by the matching procedure;  
and

15 difference output procedures for outputting a difference  
between the configuration of the virtually-established  
information system and the security policy, obtained by means  
of comparison.

83. A program for causing a computer to perform:  
level-of-rigorousness inspection procedures for  
20 inspecting whether or not individual rules of the security policy  
match an indicator of rigorousness prescribed by a user;

rigorousness adjustment procedures for replacing the rules  
which have been determined not to match the indicator in the  
level-of-rigorousness inspection procedure with rules matching  
25 the indicator of rigorousness; and

merge and output procedures for merging the rules matching  
the indicator of rigorousness from the beginning with the rules

which in the rigorousness adjustment procedure have replaced the rules not matching the indicator and for outputting the merged rules.